

SharpLeaf

Flowing automated reports to paper

SharpLeaf Unleashed

SharpLeaf is page-based reporting tool providing basic typesetting abilities. It is an object-oriented state machine that allows you to programmatically flow content (text, tables, charts and images), page by page. The philosophy, as opposed to most modern reporting tools, is to keep it simple and clean, rather than complex and dirty.

The goal of this report is to demonstrate some basic features of the SharpLeaf engine, which is why this foreword starts by showing off a dropped capital, and how the text flow nicely wraps around it! We will look at other inclusions later, namely charts and tables.

You will find contact information in the "Contact" section (p. 4) .

Flowing text

Here are extracts of the Wikipedia article on typography. In the first section, it will be flown as text, with fine control over the "print head". The second section will just flow regular paragraphs. The third, and last, will demonstrate bullet lists.

Overview

Typography is the art and technique of arranging type to make written language readable and appealing. The arrangement of type involves selecting **typefaces**, **point size**, line length, *[censored content]*. Type design is a closely related craft, sometimes considered part of typography: most typographers do not design typefaces, and some type designers do not consider themselves typographers.^[3] In modern times, typography has been put in film, television and online broadcasts to add emotion to communication.^[4]^[unreliable source?]

Typography is performed by typesetters, compositors, typographers, graphic designers, art directors, manga artists, comic book artists, graffiti artists, clerical workers, and everyone else who arranges type for a product. Until the Digital Age, typography was a specialized occupation. Digitization

opened up typography to new generations of visual designers and lay users, and David Jury, Head of Graphic Design at Colchester Institute in England, states that "typography is now something everybody does."^[5]

Basic principles

Legibility is primarily the concern of the typeface designer, to ensure that each individual character or glyph is unambiguous and distinguishable from all other characters in the font. Legibility is also in part the concern of the typographer to select a typeface with appropriate clarity of design for the intended use at the intended size. An example of a well-known design, Brush Script, contains a number of illegible letters, since many of the characters can be easily misread especially if seen out of textual context.

Readability is primarily the concern of the typographer or information designer. It is the intended result of the complete process of presentation of textual material in order to communicate meaning as unambiguously as possible. A reader should be assisted in navigating around the information with ease, by optimal inter-letter, inter-word and particularly inter-line spacing, coupled with appropriate line length and position on the page, careful editorial "chinking" and choice of the text architecture of titles, folios, and reference links.

Some commonly agreed findings of legibility research include.^[citation needed]

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2. Extenders (ascenders, descenders and other projecting parts) increase salience (prominence).
3. Regular upright type (roman type) is found to be more legible than italic type.
4. Contrast, without dazzling brightness, has also been found to be important, with black on yellow/cream being most effective.
5. Positive images (e.g. black on white) are easier to read than negative or reversed (e.g. white on black). However even this commonly accepted practice has some exceptions, for example in some cases of disability.
6. The upper portions of letters play a stronger part than the lower portions in the recognition process.

What is SharpLeaf ?

- Page-based reporting tool
 - Typographic and tabulation engine
 - Width-constrained downward flow
 - Fill frames and move on

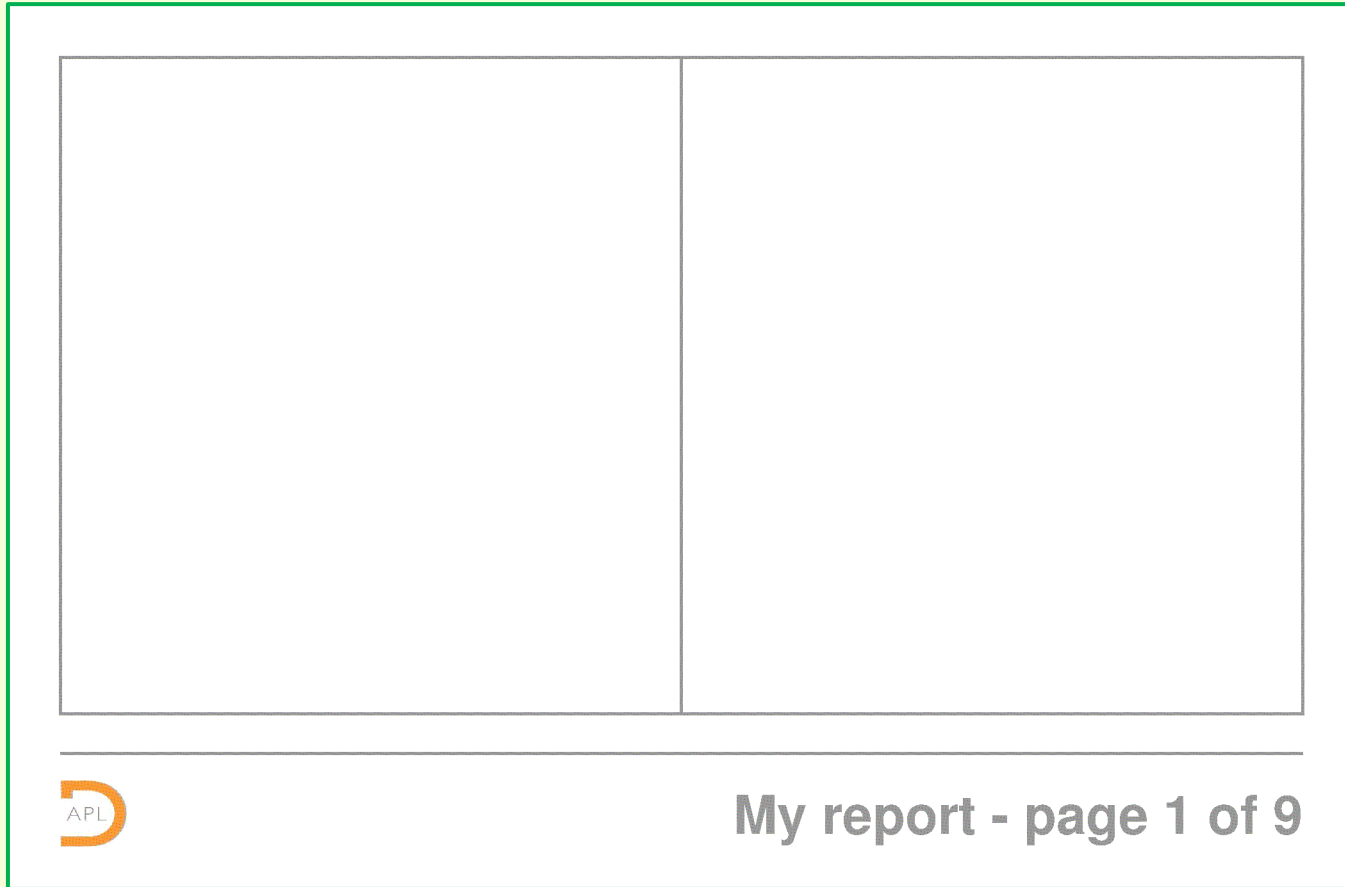


How to use it ?

- Create Page Layouts (incl. Frames)
- Create Paragraph Styles (incl. Fonts)
- Flow content
 - Move cursor (NextLine, NextPage...)
 - Flow text
 - Include objects (Images, Charts, Tables)
- Output to file (or stream)



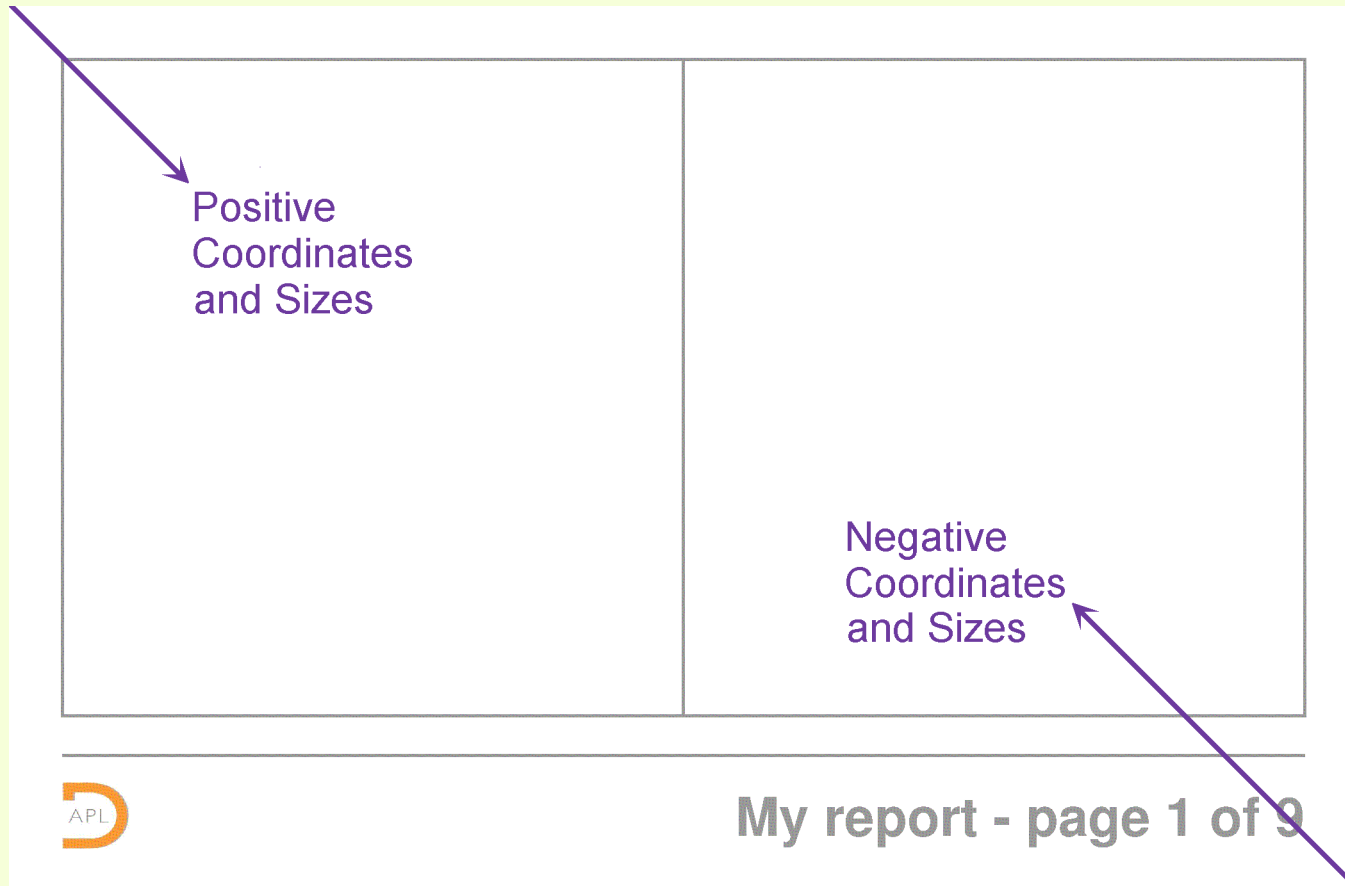
Document and Page Layout



Paper Size and Fill



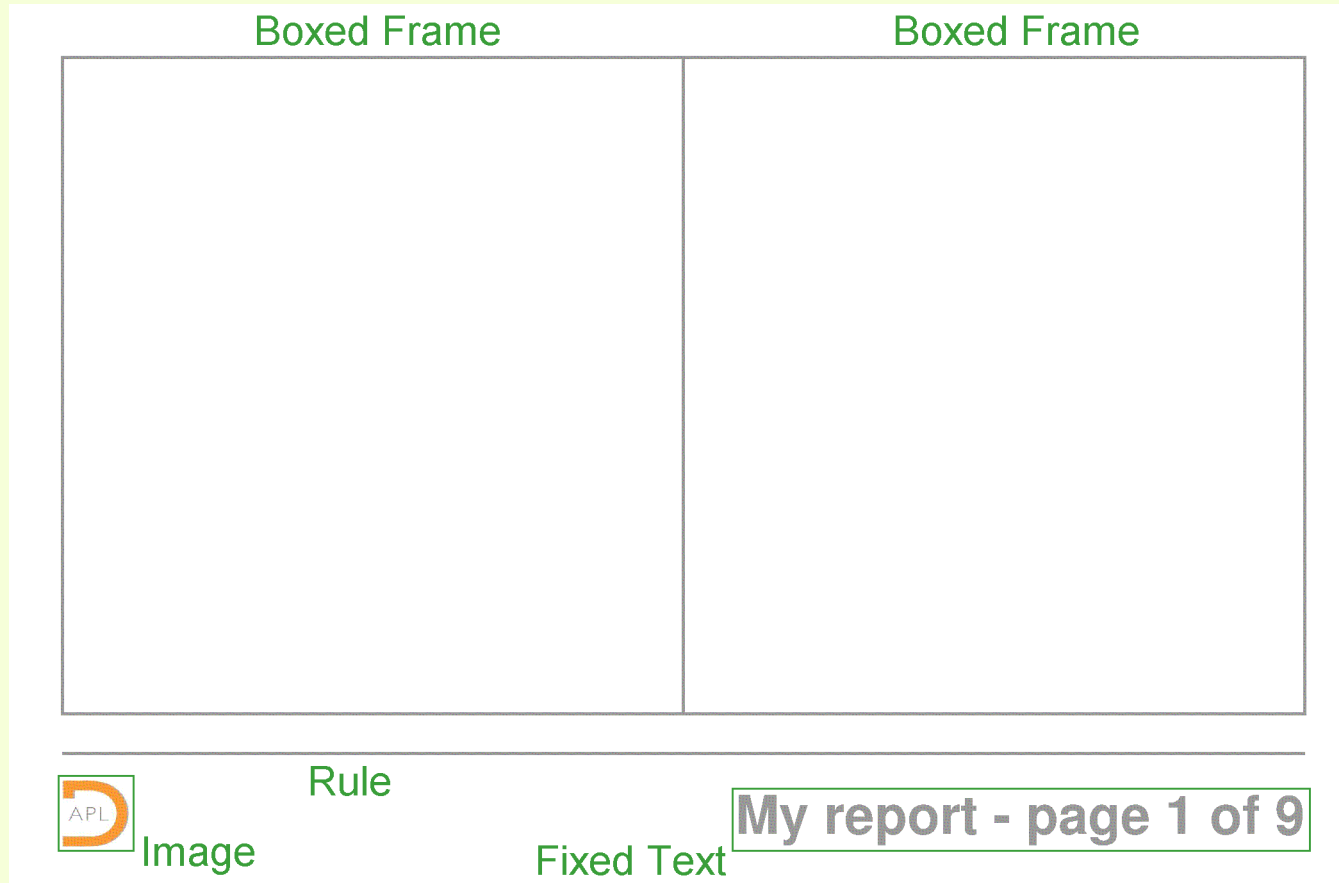
Document and Page Layout



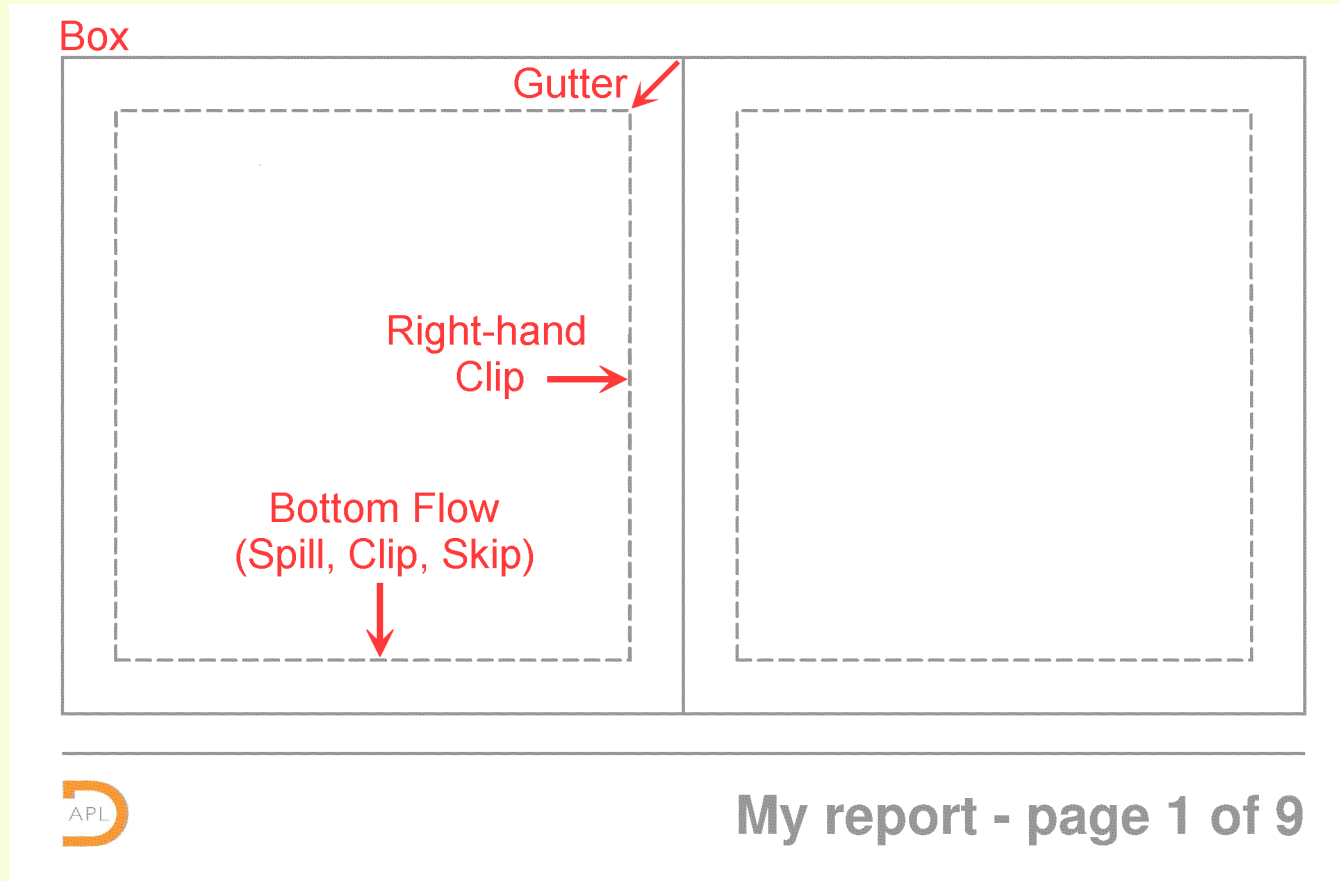
72 points in a inch, 1 point \approx 0.353mm



Document and Page Layout



Document and Page Layout



Document and Page Layout

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Also in 1960, Iverson used his notation in a draft of the chapter "A Programming Language", written for a book he was writing with Fred Brooks, Automatic Data Processing, which would be published in 1963. [11] [12]

As early as 1962, the first attempt to use the notation to describe a complete computer system happened after Falkoff discussed with Dr. Wil-

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In 1963, Herbert Hellerman, working at the IBM Systems Research Institute, implemented a part of the notation on an IBM 1620 computer, and it was used by students in a special high school course on calculating transcendental functions by series summation. Students tested their code in Hellerman's lab. This implementation of a portion of the notation was called PAT (Personalized Array Translator). [13]

In 1963, Falkoff, Iverson, and Edward H. Sussenguth Jr., all working at IBM, used the notation for a formal description of the IBM System/360 series machine architecture and functionality, which resulted in a paper published in IBM Systems Journal in 1964. After this was published, the team turned their attention to an implementation of the notation on a computer system. One of the motivations for this focus of implementation was the interest of John L. Lawrence who had new duties with Science Research Associates, an educational company bought by IBM in 1964. Lawrence asked Iverson and his group to help utilize the language as a tool for the development and use of computers in education. [14]

After Lawrence M. Breed and Philip S. Abrams of Stanford University joined the team at IBM Research, they continued their prior work on an implementation programmed in FORTRAN IV for a portion of the notation was done for the IBM 7090 computer running under the IBSYS operating system. This work was finished in late 1965 and later known



My report - page 1 of 9



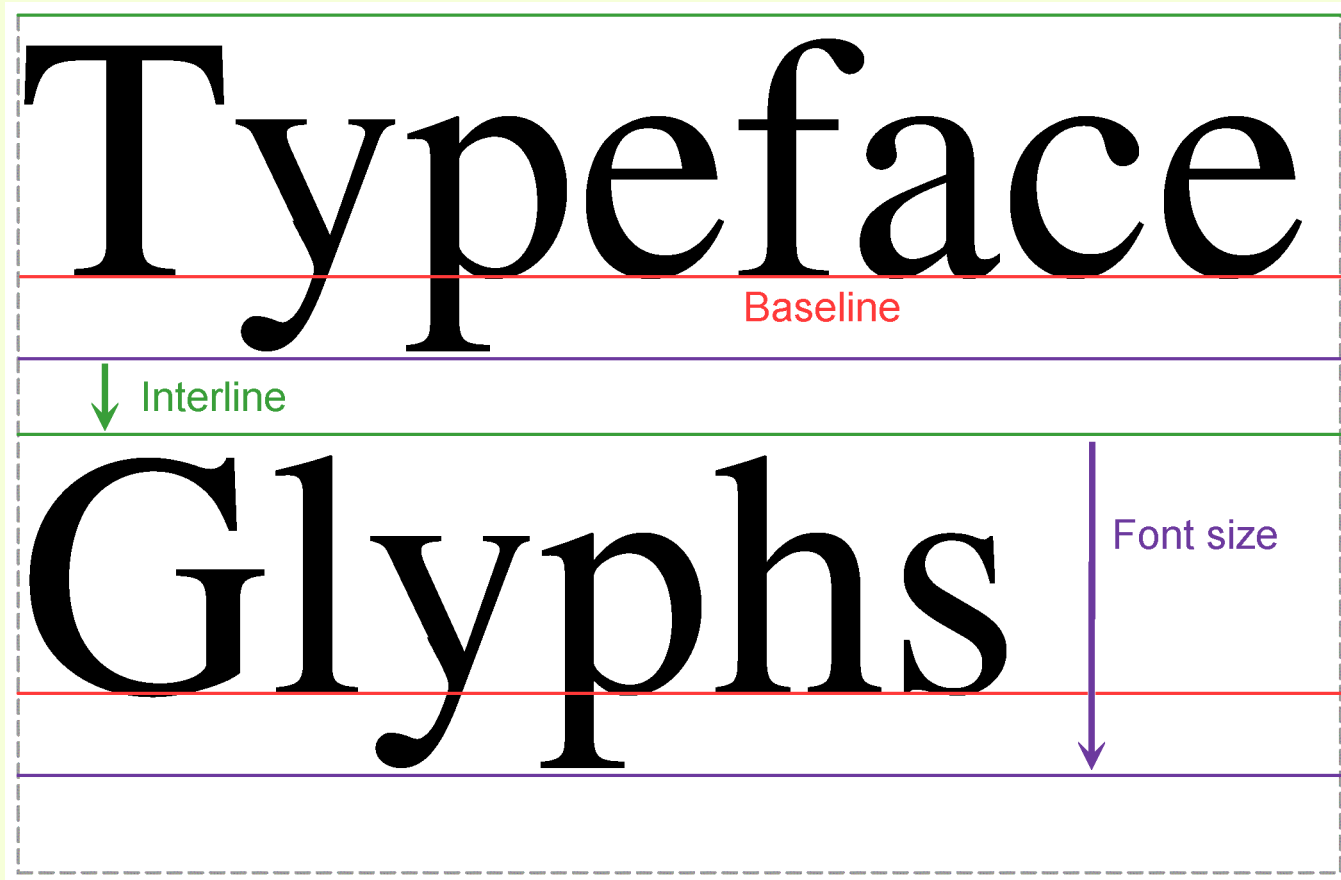
Fonts

Typeface
Glyphs

Font Name, Style, Color



Fonts



Paragraphs

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Old-style tab stops are supported, but hard to automate:

| Name | Salary |
|--------------------------------|--------|
| John Smith | 23,540 |
| Theodore Leopold Abrahamovitch | 25,430 |



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First Indent

Space Before

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Left Indent

Space After

Right Indent

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- Bullet** **First Indent**
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Left Alignment

Wrap, Soft Hyphen
Non-breakable space

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Tabs
Tab Alignments



Widow and Orphan control

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Tips on legibility

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Space Following

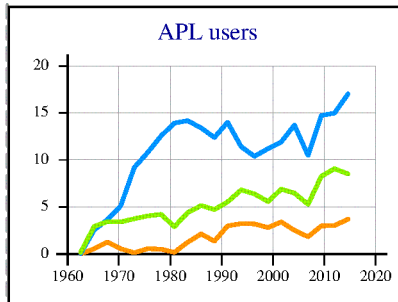
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Inclusions



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| | | | |
|------|-------|-------|-------|
| Jan | 65.64 | 27.87 | 10.18 |
| Feb | 33.33 | 46.58 | 70.66 |
| Mar | 20.58 | 59.38 | 65.17 |
| Apr | 80 | 67.77 | 33.04 |
| May | 31.62 | 23.72 | 72.66 |
| June | 16.02 | 27.94 | 67.3 |
| July | 10.25 | 12.74 | 1.21 |
| Aug | 98.34 | 28.1 | 56.8 |
| Sept | 79.45 | 81.54 | 71.21 |



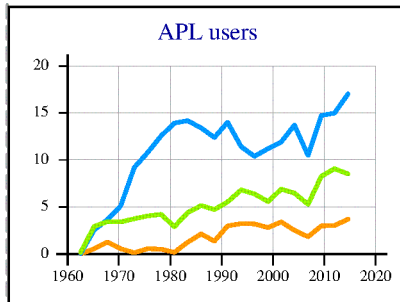
Inclusions



Image as Paragraph

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Chart on the Left



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Table on the Right

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Decorations

And now let's ~~ruin~~ enhance the readability of our document, and show off with all sorts of typographic eye-candy, such as **C***r***a***z***y** inlined font changes.

More reasonably, we can also include ^{superscripts} and _{subscripts} and also combinations of the two such as M_j^i that align as nicely as you could expect. *[citation needed]*

**WE CAN ALSO BOX AND CENTER
PARAGRAPHS TO MAKE THEM APPEAR
MORE IMPORTANT.**



Decorations

Dropped
Capital
on 2 lines

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Box



Tables

| Table Heading <i>with a subheading</i> | | | | |
|---|---------------------------------------|--|----------------------------|--|
| Table may also have a caption | | | | |
| | Left | Center | Right | Decimal |
| Top | Cell with explicit newlines | Cell that doesn't wrap nor clip, spilling all over the place | 123.45 | N/A |
| Middle | Cell that forces a large column width | Cell that wraps nicely on multiple lines | Boxed cell | Cell with explicit newlines : A = 3.1416 B = 27 C = 99.9 |
| Bottom | Fill character..... | <i>Fancy Font</i> | Cell that doesn't wrap but | Cell that wraps and ends with a decimal value = 123.45 (and a footnote too) |



Table-wide settings

Table Heading
with a subheading

Titles, Offset, Retain
Table may also have a caption

Table box

| | Left | Center | Right | Decimal |
|---------------|---------------------------------------|--|----------------------------|--|
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Cell Gutter

Column Min and Max Width



Column- and Row-wise settings

Table may also have a caption

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(and a footnote too)

Column Widths (Fixed, Relative, Autofit)

Minimum Row Heights

Column and Row Grids (Width, Style, Color)



Cell-wise settings

Table may also have a caption

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Font, Box
Alignment, Wrap, Clip
Fill Character



Filling tables

Table Heading

| Caption | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Totals |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Denmark | 0.22 | 9.75 | 7 | 6.39 | 7.49 | 7.1 | 3.77 | 7.38 | 5.18 | 1.94 | 8.78 | 4.94 | 1.26 | 7.15 | 7.11 | 85.46 |
| France | 3.56 | 6.62 | 0.1 | 4.51 | 5.89 | 1.18 | 0.55 | 8.79 | 0.42 | 8.97 | 5.9 | 6.96 | 1.66 | 4.27 | 5.48 | 64.86 |
| Germany | 7.37 | 1.47 | 2.55 | 6.45 | 2.96 | 4.15 | 4.92 | 1.15 | 7.63 | 1.26 | 1.89 | 5.76 | 5.7 | 4.16 | 4.5 | 61.92 |
| Italy | 1.13 | 6.68 | 0.33 | 7.51 | 2.64 | 2.59 | 1.01 | 2.63 | 6.48 | 1.71 | 5.24 | 3.39 | 5.99 | 9.84 | 5.46 | 62.63 |
| United Kingdom | 2.36 | 5.29 | 2.75 | 2.24 | 4.4 | 9.92 | 2.7 | 2.44 | 5.47 | 8.69 | 0.46 | 4.69 | 5.68 | 8.63 | 7.57 | 73.29 |
| Canada | 3.42 | 1.84 | 2.12 | 1.47 | 4.55 | 4.7 | 5.14 | 0.8 | 3.36 | 5.62 | 4.44 | 0.64 | 7.75 | 4.35 | 4.34 | 54.54 |
| USA | 7.71 | 1.08 | 5.27 | 8.11 | 0.93 | 1.05 | 5.72 | 4.9 | 9.92 | 0.29 | 3.27 | 3.14 | 9.2 | 9.9 | 2.56 | 73.05 |
| China | 6.1 | 5.29 | 9.12 | 7.22 | 8.55 | 6.74 | 3.61 | 0.46 | 1.79 | 9.31 | 7.76 | 4.12 | 8.58 | 1.95 | 5.61 | 86.21 |
| India | 4.67 | 9.24 | 0.37 | 4.8 | 8.25 | 2.17 | 1.92 | 7.76 | 7.42 | 5.25 | 7.17 | 3.05 | 8.94 | 1.4 | 9.83 | 82.24 |
| Japan | 3.58 | 2.13 | 7.49 | 5.59 | 0.34 | 7.56 | 3.95 | 3.36 | 9.32 | 1.63 | 0.04 | 8.4 | 2.75 | 9.42 | 1.47 | 67.03 |

Footnote



Filling tables

Table Heading

Caption

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Totals |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Denmark | 0.22 | 9.75 | 7 | 6.39 | 7.49 | 7.1 | 3.77 | 7.38 | 5.18 | 1.94 | 8.78 | 4.94 | 1.26 | 7.15 | 7.11 | 85.46 |
| France | 3.56 | 6.62 | 0.1 | 4.51 | 5.89 | 1.18 | 0.55 | 8.79 | 0.42 | 8.97 | 5.9 | 6.96 | 1.66 | 4.27 | 5.48 | 64.86 |
| Germany | 7.37 | 1.47 | 2.55 | 6.45 | 2.96 | 4.15 | 4.92 | 1.15 | 7.63 | 1.26 | 1.89 | 5.76 | 5.7 | 4.16 | 4.5 | 61.92 |
| Italy | 1.13 | 6.68 | 0.33 | 7.51 | 2.64 | 2.59 | 1.01 | 2.63 | 6.48 | 1.71 | 5.24 | 3.39 | 5.99 | 9.84 | 5.46 | 62.63 |
| United Kingdom | 2.36 | 5.29 | 2.75 | 2.24 | 4.4 | 9.92 | 2.7 | 2.44 | 5.47 | 8.69 | 0.46 | 4.69 | 5.68 | 8.63 | 7.57 | 73.29 |
| Canada | 3.42 | 1.84 | 2.12 | 1.47 | 4.55 | 4.7 | 5.14 | 0.8 | 3.36 | 5.62 | 4.44 | 0.64 | 7.75 | 4.35 | 4.34 | 54.54 |
| USA | 7.71 | 1.08 | 5.27 | 8.11 | 0.93 | 1.05 | 5.72 | 4.9 | 9.92 | 0.29 | 3.27 | 3.14 | 9.2 | 9.9 | 2.56 | 73.05 |
| China | 6.1 | 5.29 | 9.12 | 7.22 | 8.55 | 6.74 | 3.61 | 0.46 | 1.79 | 9.31 | 7.76 | 4.12 | 8.58 | 1.95 | 5.61 | 86.21 |
| India | 4.67 | 9.24 | 0.37 | 4.8 | 8.25 | 2.17 | 1.92 | 7.76 | 7.42 | 5.25 | 7.17 | 3.05 | 8.94 | 1.4 | 9.83 | 82.24 |
| Japan | 3.58 | 2.13 | 7.49 | 5.59 | 0.34 | 7.56 | 3.95 | 3.36 | 9.32 | 1.63 | 0.04 | 8.4 | 2.75 | 9.42 | 1.47 | 67.03 |

Footnote

Set Cell Alignment to Center

Add Rows



Filling tables

Table Heading

Caption

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Totals |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Denmark | 0.22 | 9.75 | 7 | 6.39 | 7.49 | 7.1 | 3.77 | 7.38 | 5.18 | 1.94 | 8.78 | 4.94 | 1.26 | 7.15 | 7.11 | 85.46 |
| France | 3.56 | 6.62 | 0.1 | 4.51 | 5.89 | 1.18 | 0.55 | 8.79 | 0.42 | 8.97 | 5.9 | 6.96 | 1.66 | 4.27 | 5.48 | 64.86 |
| Germany | 7.37 | 1.47 | 2.55 | 6.45 | 2.96 | 4.15 | 4.92 | 1.15 | 7.63 | 1.26 | 1.89 | 5.76 | 5.7 | 4.16 | 4.5 | 61.92 |
| Italy | 1.13 | 6.68 | 0.33 | 7.51 | 2.64 | 2.59 | 1.01 | 2.63 | 6.48 | 1.71 | 5.24 | 3.39 | 5.99 | 9.84 | 5.46 | 62.63 |
| United Kingdom | 2.36 | 5.29 | 2.75 | 2.24 | 4.4 | 9.92 | 2.7 | 2.44 | 5.47 | 8.69 | 0.46 | 4.69 | 5.68 | 8.63 | 7.57 | 73.29 |
| Canada | 3.42 | 1.84 | 2.12 | 1.47 | 4.55 | 4.7 | 5.14 | 0.8 | 3.36 | 5.62 | 4.44 | 0.64 | 7.75 | 4.35 | 4.34 | 54.54 |
| USA | 7.71 | 1.08 | 5.27 | 8.11 | 0.93 | 1.05 | 5.72 | 4.9 | 9.92 | 0.29 | 3.27 | 3.14 | 9.2 | 9.9 | 2.56 | 73.05 |
| China | 6.1 | 5.29 | 9.12 | 7.22 | 8.55 | 6.74 | 3.61 | 0.46 | 1.79 | 9.31 | 7.76 | 4.12 | 8.58 | 1.95 | 5.61 | 86.21 |
| India | 4.67 | 9.24 | 0.37 | 4.8 | 8.25 | 2.17 | 1.92 | 7.76 | 7.42 | 5.25 | 7.17 | 3.05 | 8.94 | 1.4 | 9.83 | 82.24 |
| Japan | 3.58 | 2.13 | 7.49 | 5.59 | 0.34 | 7.56 | 3.95 | 3.36 | 9.32 | 1.63 | 0.04 | 8.4 | 2.75 | 9.42 | 1.47 | 67.03 |

Footnote

Set Cell Alignment to Left

Add Columns



Filling tables

Table Heading

Caption

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Totals |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Denmark | 0.00 | 0.75 | 3 | 0.00 | 7.40 | 7.1 | 0.77 | 7.00 | 5.10 | 1.04 | 0.70 | 1.04 | 1.00 | 7.15 | 7 | 85.46 |
| France | 0.50 | 0.00 | 0.1 | 1.51 | 5.00 | 1.10 | 0.55 | 0.70 | 0.10 | 0.07 | 5.0 | 0.00 | 1.00 | 1.07 | 0 | 64.86 |
| Germany | 7.07 | 1.17 | 0.55 | 0.15 | 0.00 | 1.15 | 1.00 | 1.15 | 7.00 | 1.00 | 1.00 | 5.70 | 5.7 | 1.10 | 1 | 61.92 |
| Italy | 1.10 | 0.00 | 0.00 | 7.51 | 0.01 | 0.50 | 1.01 | 0.00 | 0.10 | 1.71 | 5.01 | 0.00 | 5.00 | 0.01 | 0 | 62.63 |
| United Kingdom | 0.00 | 5.00 | 0.75 | 0.01 | 1.1 | 0.00 | 0.7 | 0.11 | 5.17 | 0.00 | 0.10 | 1.00 | 5.00 | 0.00 | 7 | 73.29 |
| Canada | 0.10 | 1.01 | 0.10 | 1.17 | 1.55 | 1.7 | 5.11 | 0.0 | 0.00 | 5.00 | 1.11 | 0.01 | 7.75 | 1.05 | 1 | 54.54 |
| USA | 7.71 | 1.00 | 5.07 | 0.11 | 0.00 | 1.05 | 5.70 | 1.0 | 0.00 | 0.00 | 0.07 | 0.11 | 0.0 | 0.0 | 0 | 73.05 |
| China | 0.1 | 5.00 | 0.10 | 7.00 | 0.55 | 0.71 | 0.01 | 0.10 | 1.70 | 0.01 | 7.70 | 1.10 | 0.50 | 1.05 | 0 | 86.21 |
| India | 1.07 | 0.01 | 0.07 | 1.0 | 0.05 | 0.17 | 1.00 | 7.70 | 7.10 | 5.05 | 7.17 | 0.05 | 0.01 | 1.1 | 0 | 82.24 |
| Japan | 0.50 | 0.10 | 7.10 | 5.50 | 0.01 | 7.50 | 0.05 | 0.00 | 0.00 | 1.00 | 0.01 | 0.1 | 0.75 | 0.10 | 1 | 67.03 |

Footnote

Set Cell Alignment to Decimal

Set Row-wise Cell Box to (5 3 2/Green Blue Yellow)

Add Rows



Filling tables

Table Heading

| Caption | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Totals |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Denmark | 0.22 | 9.75 | 7 | 6.39 | 7.49 | 7.1 | 3.77 | 7.38 | 5.18 | 1.94 | 8.78 | 4.94 | 1.26 | 7.15 | 7.11 | 85.46 |
| France | 3.56 | 6.62 | 0.1 | 4.51 | 5.89 | 1.18 | 0.55 | 8.79 | 0.42 | 8.97 | 5.9 | 6.96 | 1.66 | 4.27 | 5.48 | 64.86 |
| Germany | 7.37 | 1.47 | 2.55 | 6.45 | 2.96 | 4.15 | 4.92 | 1.15 | 7.63 | 1.26 | 1.89 | 5.76 | 5.7 | 4.16 | 4.5 | 61.92 |
| Italy | 1.13 | 6.68 | 0.33 | 7.51 | 2.64 | 2.59 | 1.01 | 2.63 | 6.48 | 1.71 | 5.24 | 3.39 | 5.99 | 9.84 | 5.46 | 62.63 |
| United Kingdom | 2.36 | 5.29 | 2.75 | 2.24 | 4.4 | 9.92 | 2.7 | 2.44 | 5.47 | 8.69 | 0.46 | 4.69 | 5.68 | 8.63 | 7.57 | 73.29 |
| Canada | 3.42 | 1.84 | 2.12 | 1.47 | 4.55 | 4.7 | 5.14 | 0.8 | 3.36 | 5.62 | 4.44 | 0.64 | 7.75 | 4.35 | 4.34 | 54.54 |
| USA | 7.71 | 1.08 | 5.27 | 8.11 | 0.93 | 1.05 | 5.72 | 4.9 | 9.92 | 0.29 | 3.27 | 3.14 | 9.2 | 9.9 | 2.56 | 73.05 |
| China | 6.1 | 5.29 | 9.12 | 7.22 | 8.55 | 6.74 | 3.61 | 0.46 | 1.79 | 9.31 | 7.76 | 4.12 | 8.58 | 1.95 | 5.61 | 86.21 |
| India | 4.67 | 9.24 | 0.37 | 4.8 | 8.25 | 2.17 | 1.92 | 7.76 | 7.42 | 5.25 | 7.17 | 3.05 | 8.94 | 1.4 | 9.83 | 82.24 |
| Japan | 3.58 | 2.13 | 7.49 | 5.59 | 0.34 | 7.56 | 3.95 | 3.36 | 9.32 | 1.63 | 0.04 | 8.4 | 2.75 | 9.42 | 1.47 | 67.03 |

Footnote

Go to Next Empty Column starting at Row 2

Set Cell Box to Grey

Add Columns



Flowing tables

Table Heading

Caption

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Totals |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Denmark | 0.22 | 9.75 | 7 | 6.39 | 7.49 | 7.1 | 3.77 | 7.38 | 5.18 | 1.94 | 8.78 | 4.94 | 1.26 | 7.15 | 7.11 | 85.46 |
| France | 3.56 | 6.62 | 0.1 | 4.51 | 5.89 | 1.18 | 0.55 | 8.79 | 0.42 | 8.97 | 5.9 | 6.96 | 1.66 | 4.27 | 5.48 | 64.86 |
| Germany | 7.37 | 1.47 | 2.55 | 6.45 | 2.96 | 4.15 | 4.92 | 1.15 | 7.63 | 1.26 | 1.89 | 5.76 | 5.7 | 4.16 | 4.5 | 61.92 |
| Italy | 1.13 | 6.68 | 0.33 | 7.51 | 2.64 | 2.59 | 1.01 | 2.63 | 6.48 | 1.71 | 5.24 | 3.39 | 5.99 | 9.84 | 5.46 | 62.63 |
| United Kingdom | 2.36 | 5.29 | 2.75 | 2.24 | 4.4 | 9.92 | 2.7 | 2.44 | 5.47 | 8.69 | 0.46 | 4.69 | 5.68 | 8.63 | 7.57 | 73.29 |
| Canada | 3.42 | 1.84 | 2.12 | 1.47 | 4.55 | 4.7 | 5.14 | 0.8 | 3.36 | 5.62 | 4.44 | 0.64 | 7.75 | 4.35 | 4.34 | 54.54 |
| USA | 7.71 | 1.08 | 5.27 | 8.11 | 0.93 | 1.05 | 5.72 | 4.9 | 9.92 | 0.29 | 3.27 | 3.14 | 9.2 | 9.9 | 2.56 | 73.05 |
| China | 6.1 | 5.29 | 9.12 | 7.22 | 8.55 | 6.74 | 3.61 | 0.46 | 1.79 | 9.31 | 7.76 | 4.12 | 8.58 | 1.95 | 5.61 | 86.21 |
| India | 4.67 | 9.24 | 0.37 | 4.8 | 8.25 | 2.17 | 1.92 | 7.76 | 7.42 | 5.25 | 7.17 | 3.05 | 8.94 | 1.4 | 9.83 | 82.24 |
| Japan | 3.58 | 2.13 | 7.49 | 5.59 | 0.34 | 7.56 | 3.95 | 3.36 | 9.32 | 1.63 | 0.04 | 8.4 | 2.75 | 9.42 | 1.47 | 67.03 |

Footnote

1 Frame Accross



Flowing tables

Table Heading

Caption

| | 2001 | 2002 | 2003 | 2004 | Totals |
|----------------|------|------|------|------|--------|
| Denmark | 0.22 | 9.75 | 7 | 6.39 | 85.46 |
| France | 3.56 | 6.62 | 0.1 | 4.51 | 64.86 |
| Germany | 7.37 | 1.47 | 2.55 | 6.45 | 61.92 |
| Italy | 1.13 | 6.68 | 0.33 | 7.51 | 62.63 |
| United Kingdom | 2.36 | 5.29 | 2.75 | 2.24 | 73.29 |
| Canada | 3.42 | 1.84 | 2.12 | 1.47 | 54.54 |
| USA | 7.71 | 1.08 | 5.27 | 8.11 | 73.05 |
| China | 6.1 | 5.29 | 9.12 | 7.22 | 86.21 |
| India | 4.67 | 9.24 | 0.37 | 4.8 | 82.24 |
| Japan | 3.58 | 2.13 | 7.49 | 5.59 | 67.03 |

| | 2005 | 2006 | 2007 | 2008 | Totals |
|----------------|------|------|------|------|--------|
| Denmark | 7.49 | 7.1 | 3.77 | 7.38 | 85.46 |
| France | 5.89 | 1.18 | 0.55 | 8.79 | 64.86 |
| Germany | 2.96 | 4.15 | 4.92 | 1.15 | 61.92 |
| Italy | 2.64 | 2.59 | 1.01 | 2.63 | 62.63 |
| United Kingdom | 4.4 | 9.92 | 2.7 | 2.44 | 73.29 |
| Canada | 4.55 | 4.7 | 5.14 | 0.8 | 54.54 |
| USA | 0.93 | 1.05 | 5.72 | 4.9 | 73.05 |
| China | 8.55 | 6.74 | 3.61 | 0.46 | 86.21 |
| India | 8.25 | 2.17 | 1.92 | 7.76 | 82.24 |
| Japan | 0.34 | 7.56 | 3.95 | 3.36 | 67.03 |

4 Frames Accross

Caption

| | 2009 | 2010 | 2011 | 2012 | Totals |
|----------------|------|------|------|------|--------|
| Denmark | 5.18 | 1.94 | 8.78 | 4.94 | 85.46 |
| France | 0.42 | 8.97 | 5.9 | 6.96 | 64.86 |
| Germany | 7.63 | 1.26 | 1.89 | 5.76 | 61.92 |
| Italy | 6.48 | 1.71 | 5.24 | 3.39 | 62.63 |
| United Kingdom | 5.47 | 8.69 | 0.46 | 4.69 | 73.29 |
| Canada | 3.36 | 5.62 | 4.44 | 0.64 | 54.54 |
| USA | 9.92 | 0.29 | 3.27 | 3.14 | 73.05 |
| China | 1.79 | 9.31 | 7.76 | 4.12 | 86.21 |
| India | 7.42 | 5.25 | 7.17 | 3.05 | 82.24 |
| Japan | 9.32 | 1.63 | 0.04 | 8.4 | 67.03 |

| | 2013 | 2014 | 2015 | Totals |
|----------------|------|------|------|--------|
| Denmark | 1.26 | 7.15 | 7.11 | 85.46 |
| France | 1.66 | 4.27 | 5.48 | 64.86 |
| Germany | 5.7 | 4.16 | 4.5 | 61.92 |
| Italy | 5.99 | 9.84 | 5.46 | 62.63 |
| United Kingdom | 5.68 | 8.63 | 7.57 | 73.29 |
| Canada | 7.75 | 4.35 | 4.34 | 54.54 |
| USA | 9.2 | 9.9 | 2.56 | 73.05 |
| China | 8.58 | 1.95 | 5.61 | 86.21 |
| India | 8.94 | 1.4 | 9.83 | 82.24 |
| Japan | 2.75 | 9.42 | 1.47 | 67.03 |

Footnote



SharpLeaf

Flowing automated reports to paper

SharpLeaf Unleashed

SharpLeaf is page-based reporting tool providing basic typesetting abilities. It is an object-oriented state machine that allows you to programmatically flow content (text, tables, charts and images), page by page. The philosophy, as opposed to most modern reporting tools, is to keep it simple and clean, rather than complex and dirty.

The goal of this report is to demonstrate some basic features of the SharpLeaf engine, which is why this foreword starts by showing off a dropped capital, and how the text flow nicely wraps around it! We will look at other inclusions later, namely charts and tables.

You will find contact information in the "Contact" section (p. 4) .

Flowing text

Here are extracts of the Wikipedia article on typography. In the first section, it will be flown as text, with fine control over the "print head". The second section will just flow regular paragraphs. The third, and last, will demonstrate bullet lists.

Overview

Typography is the art and technique of arranging type to make written language readable and appealing. The arrangement of type involves selecting **typefaces**, **point size**, line length, *[censored content]*. Type design is a closely related craft, sometimes considered part of typography: most typographers do not design typefaces, and some type designers do not consider themselves typographers.^[3] In modern times, typography has been put in film, television and online broadcasts to add emotion to communication.^{[4]^[unreliable source?]}

Typography is performed by typesetters, compositors, typographers, graphic designers, art directors, manga artists, comic book artists, graffiti artists, clerical workers, and everyone else who arranges type for a product. Until the Digital Age, typography was a specialized occupation. Digitization

opened up typography to new generations of visual designers and lay users, and David Jury, Head of Graphic Design at Colchester Institute in England, states that "typography is now something everybody does."^[5]

Basic principles

Legibility is primarily the concern of the typeface designer, to ensure that each individual character or glyph is unambiguous and distinguishable from all other characters in the font. Legibility is also in part the concern of the typographer to select a typeface with appropriate clarity of design for the intended use at the intended size. An example of a well-known design, Brush Script, contains a number of illegible letters, since many of the characters can be easily misread especially if seen out of textual context.

Readability is primarily the concern of the typographer or information designer. It is the intended result of the complete process of presentation of textual material in order to communicate meaning as unambiguously as possible. A reader should be assisted in navigating around the information with ease, by optimal inter-letter, inter-word and particularly inter-line spacing, coupled with appropriate line length and position on the page, careful editorial "chinking" and choice of the text architecture of titles, folios, and reference links.

Some commonly agreed findings of legibility research include.^[citation needed]

1. Text set in lower case is more legible than text set all in upper case (capitals), presumably because lower case letter structures and word shapes are more distinctive.
2. Extenders (ascenders, descenders and other projecting parts) increase salience (prominence).
3. Regular upright type (roman type) is found to be more legible than italic type.
4. Contrast, without dazzling brightness, has also been found to be important, with black on yellow/cream being most effective.
5. Positive images (e.g. black on white) are easier to read than negative or reversed (e.g. white on black). However even this commonly accepted practice has some exceptions, for example in some cases of disability.
6. The upper portions of letters play a stronger part than the lower portions in the recognition process.